

Title (en)
Directed complementation

Title (de)
Gerichtete Komplementierung

Title (fr)
Complémentation dirigée

Publication
EP 2325320 A1 20110525 (EN)

Application
EP 10181722 A 20060405

Priority

- EP 06740686 A 20060405
- US 9973505 A 20050405
- US 28284705 A 20051117

Abstract (en)

A method of producing a tumorigenic mouse cell, the tumorigenicity of which depends on a recombinant gene of interest is disclosed. The method involves: (a) providing a conditionally tumorigenic mouse cell containing a recombinant oncogene operably linked to an inducible promoter, wherein (i) expression of the recombinant oncogene is necessary and sufficient for the tumorigenicity of the tumorigenic mouse cell, and (ii) the inducible promoter is in the uninduced state; and (b) introducing into the cell a recombinant gene of interest that functionally complements the oncogene. Also disclosed is a method of testing a compound for anti-tumor effects. The method includes producing tumorigenic mouse cells the tumorigenicity depends on expression of a recombinant gene of interest, implanting the cells in mice and obtaining tumors from the implanted cells, administering test compounds to the mice, and determining anti-tumor effects, if any, of the compounds.

IPC 8 full level

C12N 15/85 (2006.01); **A01K 67/00** (2006.01); **C12N 5/10** (2006.01)

CPC (source: EP US)

A01K 67/0271 (2013.01 - EP US); **C07K 14/82** (2013.01 - EP US); **C12N 15/8509** (2013.01 - EP US); **A01K 2217/05** (2013.01 - EP US);
A01K 2217/075 (2013.01 - EP US); **A01K 2227/105** (2013.01 - EP US); **A01K 2267/0331** (2013.01 - EP US); **C12N 2830/002** (2013.01 - EP US)

Citation (applicant)

- US 6639121 B1 20031028 - DEPINHO RONALD A [US], et al
- WO 2005020683 A1 20050310 - GENPATH PHARMACEUTICALS INC [US], et al
- WO 0109308 A1 20010208 - DANA FARBER CANCER INST INC [US]
- HORST ET AL., INT J CANCER, vol. 115, 2005, pages 519 - 527
- HOLBRO ET AL., PROC NATL ACAD SCI USA, vol. 100, 2003, pages 8933 - 8938
- LI ET AL., J BIOL CHEM, vol. 271, 1996, pages 19402 - 19408
- DAI ET AL., GENES CHROMOSOMES CANCER, vol. 27, 2000, pages 332 - 336
- LI ET AL., JBIOL CHEM, vol. 271, 1996, pages 19402 - 19408
- CHIN ET AL., NATURE, vol. 400, 1999, pages 468 - 472
- JOHNSON ET AL., NATURE, vol. 410, 2001, pages 1111 - 1116
- LEWANDOSKI: "Conditional Control of Gene Expression in the Mouse", NATURE REV., vol. 2, 2001, pages 743 - 755
- EDLUND ET AL., SCIENCE, vol. 230, 1985, pages 912 - 916
- KESSEL ET AL., SCIENCE, vol. 249, 1990, pages 374 - 379
- CAMPES ET AL., GENES DEV., vol. 3, 1989, pages 537 - 546
- ALEX JOYNER,: "Gene Targeting, A Practical Approach, 2nd Ed.", 2000, OXFORD PRESS
- "Remington: The Science and Practice of Pharmacy, 20th ed.", 2000, LIPPINCOTT, WILLIAMS & WILKINS
- ANSEL ET AL.: "Pharmaceutical Dosage Forms and Drug Delivery Systems, 7th ed.", 1999, LIPPINCOTT WILLIAMS & WILKINS PUBLISHERS
- KIBBE: "Handbook of Pharmaceutical Excipients, 3rd ed.", 2000, AMERICAN PHARMACEUTICAL ASSOCIATION

Citation (search report)

- [A] WO 2004089073 A2 20041021 - GENPATH PHARMACEUTICALS INC [US], et al
- [A] WO 02079419 A2 20021010 - DANA FARBER CANCER INST INC [US], et al
- [A] WO 2005020683 A1 20050310 - GENPATH PHARMACEUTICALS INC [US], et al
- [A] WO 0109308 A1 20010208 - DANA FARBER CANCER INST INC [US]
- [A] WO 2004058948 A2 20040715 - GENPATH PHARMACEUTICALS INC [US], et al
- [A] ALLEN J D ET AL: "COMPLEMENTATION TAGGING OF COOPERATING ONCOGENES IN KNOCKOUT MICE", SEMINARS IN CANCER BIOLOGY, SAUNDERS SCIENTIFIC PUBLICATIONS, PHILADELPHIA, PA, US, vol. 7, October 1996 (1996-10-01), pages 299 - 306, XP001148103, ISSN: 1044-579X
- [A] CHIN L ET AL: "Essential role for oncogenic ras in tumour maintenance", NATURE, NATURE PUBLISHING GROUP, LONDON, GB, vol. 400, 1999, pages 468 - 472, XP002284952, ISSN: 0028-0836
- [A] DING H ET AL: "Mouse astrocytoma models: embryonic stem cell mediated transgenesis", JOURNAL OF NEURO-ONCOLOGY, KLUWER, BOSTON, US, vol. 53, no. 3, July 2001 (2001-07-01), pages 289 - 296, XP002311878, ISSN: 0167-594X
- [A] SEIBLER J ET AL: "Rapid generation of inducible mouse mutants", 15 February 2003, NUCLEIC ACIDS RESEARCH, OXFORD UNIVERSITY PRESS, SURREY, GB, PAGE(S) E12 - 1, ISSN: 0305-1048, XP002300497

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

US 2006222590 A1 20061005; AU 2006232125 A1 20061012; AU 2006232125 B2 20101007; AU 2006232125 C1 20110414;
CA 2602594 A1 20061012; CA 2602594 C 20131231; EP 1874939 A1 20080109; EP 1874939 B1 20120711; EP 2325320 A1 20110525;
ES 2390470 T3 20121113; JP 2008537883 A 20081002; JP 4686598 B2 20110525; NZ 562749 A 20091224; US 2006228302 A1 20061012;
US 7556796 B2 20090707; WO 2006108123 A1 20061012

DOCDB simple family (application)

US 28284705 A 20051117; AU 2006232125 A 20060405; CA 2602594 A 20060405; EP 06740686 A 20060405; EP 10181722 A 20060405;
ES 06740686 T 20060405; JP 2008505554 A 20060405; NZ 56274906 A 20060405; US 2006012965 W 20060405; US 39817106 A 20060405